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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PAK, SUNG H

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/524,727

Applicant(s)

JERMAN ET AL.

Examiner

Sung H. Pak

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 March 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 21-37 is/are pending in the application.
- 4a) Of the above claim(s) 24-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 21-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1</u> | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

Applicants' response filed 3/28/2003 has been carefully reviewed by the examiner. Claims 1-17, 21-23 are now pending. In view of the arguments presented by the applicants, double patenting rejection on claims 1, 5-17, 21-23 is hereby withdrawn. However, claims 2-4 are still subject to double patenting rejection. Please refer to Remarks for further discussion.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5-15, 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Lin (US 5,960,132).

Regarding claims 1, 21, Lin discloses an optical microswitch with all the limitations set forth in the claims, including: an inlet port receiving laser beam and plurality of outlet ports (Fig. 5); plurality of mirrors and micromotors carried by the body (Fig. 5); attachment means for coupling the plurality of mirrors to the respective plurality of micromotors (Fig. 16); whereby the micromotors selectively move the mirrors from a first position out of the path of the laser beam to a second position into the path of the

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laser beam to direct the laser beam to one of the outlet ports (Fig. 5); each of the micromotors having at least one electrostatically driven comb drive assembly therein for moving the respective mirror to one of the first and second positions (Fig. 16 and column 3 lines 39-44).

Regarding claims 5-7, 22, Lin discloses the first plurality of mirrors and corresponding micromotors being linearly disposed along a first imaginary line and the second plurality of mirrors and corresponding micromotors being linearly disposed along a second imaginary line extending parallel to the first imaginary line and the path of the laser beam (Fig 5, Fig. 16).

Regarding claim 8, the first and second plurality of mirrors are each inclined to direct the laser beam in a single direction (Fig. 5).

Regarding claims 9-11, Lin discloses third plurality of mirrors and corresponding micromotors; fourth plurality of mirrors and corresponding micromotors (Fig. 5); the path of the laser beam extendable between the third plurality of micromotors and the fourth plurality of micromotors so that the third plurality of micromotors oppose the fourth plurality of micromotors relative to the path of the laser beam (Fig. 5 and Fig. 16); mean, including additional mirrors and micromotors for selectively directing the laser beam along a first path extending between the first and second plurality of micromotors and a second path extending between the third and fourth plurality of micromotors (Fig. 5).

Regarding claim 13, Lin discloses the use of plurality of mirrors, in which the number of mirrors used may be greater than 12 (Fig. 5).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (US 5,960,132).

Lin discloses an optical switch with all the limitations set forth in the claims as discussed above, except it does not teach the use of travel stop means for limiting the movement of the mirrors. However, travel stop means for MEMs mirror devices are well known and commonly used in the art. Travel stop means are advantageous over the

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prior art devices because it allows for precise movement and placement of light reflecting mirrors. Such a feature limits signal errors in optical transmission. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lin device to have a travel stop means.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2, 3, 4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 4, 5 of U.S. Patent No. 6,134,207, respectively. Although the conflicting claims are not identical, they are not patentably distinct from each other because the broader limitations claimed in the instant application is fully encompassed and patented in the claims 2, 4, 5 of the '207 patent.

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### **R marks**

Double patenting rejection:

On page 3 of the applicants' response, it is argued that "any withdrawal of the restriction requirement in the '236 application was only as a result of the applicant's amendment of claims 1-17 to depend from the elected claims 18-20," and that "applicant was not permitted to pursue claims 1-17 independently from claims 18-20..."

The examiner agrees with the applicants in that as a result of restriction requirement between **combination** and **subcombination** of invention claimed in the parent application, the applicants were **prohibited from pursuing subcombination** independently from the combination claimed. In that sense, at least claim 1, and any other dependent claims that are **drawn solely to the subcombination** may be examined on the merit. However, any claims that are drawn to the **combination must be subject to double patenting** rejection.

MPEP Section 804.01 lists several situations where the prohibition of double patenting rejection under 35 U.S.C. 121 does not apply. Contrary to the applicants' argument set forth in page 3 of the response, the most relevant exception in this case is noted in MPEP Section 804.01 (B), where the claims of the different applications or patents are not consonant with the restriction requirement made by the examiner. "In order for consonance to exist, the line of demarcation between the independent and distinct inventions identified by the examiner in the requirement for restriction must be maintained." MPEP 804.01 (B) citing 916 F.2d 686, 688, 16 USPQ2d 1436 (Fed. Cir. 1990).

Although applicants may argue that the claims presented in this application is consonant with the restriction requirement, since the original claims 1-17 were filed as a divisional application. However, this is an "absolutist view" that the Court of Appeals explicitly rejected. 916 F.2d at 686-687, 16 USPQ2d. The Court of Appeals explicitly ruled that:

The prohibition against use of a parent application "as a reference" against a divisional application applies only to the divisional applications that are "filed as a result of" a restriction requirement. Plain common sense dictates that a **divisional application filed as a result of a restriction requirement may not contain claims drawn to the invention set forth in the claims elected and prosecuted to patent in the parent application**. The divisional application must have claims drawn only to the "other invention." It is true that the disclosure in the patent containing the elected claims cannot be used as a "reference" on which to reject a claim in a divisional application under 35 USC 103, for that disclosure is the applicant's and is not the "prior art." **That is not to say, however, that the elected claims may not be looked to in assessing compliance with the prohibition against claiming the same invention in two patents**. In this regard, the phrase "obviousness type" may have been an unfortunate choice, for as here, the claims in the divisional application may be actually drawn (though in variant language) to the same invention as that set forth in the elected claims. As discussed... that phenomenon **may be viewed as a failure to keep the claims in the divisional application "consonant."**

916 F.2d at 686-687, 16 USPQ2d. Emphasis added.

Because some of the claims that are filed in the instant application are actually drawn to the combination claimed and prosecuted to a patent in the parent application, these claims lack consonance, and they are subject to double patenting rejection.

### ***Conclusion***



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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Riza et al (US 5,208,880) discloses a dynamic fiber optic switch using movable reflectors (Fig. 1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sung H. Pak whose telephone number is (703) 308-4880. The examiner can normally be reached on Monday - Thursday : 6:30am-5:00pm.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Sung H. Pak  
Examiner  
Art Unit 2874

sp  
June 15, 2003



HEMANG SANGHAVI  
PRIMARY EXAMINER